HORSE SENSE

A Practical & Natural Horse Management Handbook
Featuring DYNAMITE® Specialty Products

by Rowan Emrys

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Preface

My husband, John Hanna, and I bred AQHA horses for over 40 years. In all that time, we found ourselves explaining over and over again our more natural approach to the care of our horses, much of which was built on our involvement in human health and nutrition. It was in explaining those needs for basic care and nutrition over many years that this Handbook was born in its earliest forms.

Many people have asked us why we use the DYNAMITE® Specialty Products. To determine appropriate nutritional requirements, Jim Zamzow, Founder & CEO of DYNAMITE® Marketing, learned from the horses themselves by following wild herds in a helicopter and analyzing their diet. The very positive rewards of using these formulations, and other DYNAMITE® Specialty Products, with our own, and hundreds of other horses with which we have dealt, is the answer. They work.

As Jim’s grandmother, Carmalita Zamzow, who, along with her husband August founded the original Zamzow’s Feed Stores in Boise ID back in 1931, said: “the proof is in the pudding!”

Now, with over twelve years of DYNAMITE® experience under our belts, and my attaining the rare Gold Director level in the DYNAMITE® organization, I believe that it is in the interest of the total health and good of the horse - its mental, emotional & physical health - to make this latest Handbook incarnation available to all.

However it is important to remember that working with horses is as much an art as a science. Each horse is an individual with individual needs; therefore variables abound and mechanistic approaches are bound to fail. Because of this, please use this information as only a guide; ultimately depend on your own eyes and perhaps newly educated instincts.

Rowan Emrys
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Part 1:
Basic Nutrition
Horses, *equus caballus*, developed on the stark, windy Eurasian steppes over hundreds of thousands of years. As prey animals that lived in a herd society, they became ideally suited to their harsh environment with distance vision, keen hearing, an almost miraculous ability to read both their environment and their fellow herd members, and legs and hooves made for running swiftly away from danger.

Humans have been associated with horses for at least thirty-five thousand years, originally for food, then transportation, and always for art and myth. Exactly when a human actually first dared to climb on the back of a horse is lost in the mists of time, but when it did happen, the history of both horse and human changed forever. The added height and speed enabled ancient humans to expand their territory, view distant sights, and wage more effective warfare. Over a period of time, various regions became famous for their horses and their training methods and thus was born the art of horsemanship.

As humans relied more and more on horses for partnership in their endeavors, handling techniques grew more sophisticated. Two thousand years ago, the Greek horsemancer Xenophon wrote the earliest treatise on horsemanship that has survived into the present. And it is still valid in the present, reading much like a modern resistance-free educational text with sound management practices.

In all this time, the basic physiological & psychological needs of horses have not changed even though modern breeds have diverged widely in both appearance and temperament. With all of our dealings with horses, we must never forget their basic, intrinsic needs and natures or we will pay the price in unthrifty, unhappy, and perhaps dangerous horses requiring constant specialized care to keep them, perhaps futilely, from breaking down physically and mentally. Al Grandchamp of Montana, one of Ray Hunt’s teachers, said it best:

> Horses: ...are governed by the law of self-preservation.  
> ...resist pressure.  
> ...are creatures of habit.  
> ...have elephant-like memories.  
> ...have one-track minds.  
> ...are animals of instinct, not logic.  
> Horses are horses.  
> Their behavior is such and not anthropomorphic.

Lest we deprive ourselves of the exhilaration and accomplishment that comes from winning the trust and companionship of such a magnificent creature, let’s get some HORSESENSE! 🐴
Health for every species begins with digestion. Hence, we need to understand the equine digestive tract in order to know how to feed for the best health possible. Without this understanding, a horse can indeed become a “hay burner” with less than optimum health and resistance to disease. Although far too many owners think that all herbivores are identical, in reality, horses are classed as monogastric herbivores meaning they have a single stomach (unlike such ruminants as cattle and sheep) and their natural diet consists only of large amounts of grasses and some herbs. In fact, it is through the constant supply of naturally dried grasses that horses were able to keep warm on the open steppes; the digestive process created body heat which was then maintained by almost constant movement. So let us take a quick tour of the gastro-intestinal tract of an average horse . . .

Mouth & throat - Equine digestion begins in the mouth as horses nip forage off with their incisors or front teeth. They then grind a large amount of the resultant cellulose with their powerful molars, or back teeth, in a side-to-side, almost circular motion mixing it with saliva to form a moist, mucous-laden bolus. Three pairs of glands (parotid, submaxillary, & sublingual) produce up to 10 gallons of saliva per day in healthy, mature horses. The bolus then travels down their long, approximately 4½ ft., esophagus, essentially a muscular tube, to reach the stomach. As a grazer, the horse is designed to both eat and drink with its head down and is subject to choke, poor thyroid function and even strain on the front hooves and legs if they eat from a head-raised position.

Upper gut - The Upper Gut is comprised of the stomach and the small intestine. The stomach has an 8-17 quart capacity; only 10% of the entire digestive tract whereas in cattle, the stomach equals 70% of the total. Since equine stomachs can hold only .3% of their body weight at any one time, this means that they are designed to eat constant small amounts of high fibrous food. The stomach then empties into the 17’, 48 quart capacity small intestine; this is where most of the protein, fat, vitamins and minerals contained in forage are digested via various enzymes. Since the horse has no gall bladder, bile constantly flows into the small intestine from the liver. Nutrients are then absorbed through the walls of the small intestine into the blood and delivered to various cellular structures. Nearly 50-70% of carbohydrate digestion and absorption, and almost all amino acid absorption, occurs in the small intestine.

Hindgut - Equines have the largest, most complex Hindgut of any domestic animal. It is designed to have a constant supply of fiber in order to maintain normal gastrointestinal pH, motility, and function.